

Amendment and Response

Applicant: Leo W. Spychalla

Serial No.: 10/725,259

Filed: December 1, 2003

Docket No.: 10413US01

Title: DATA STORAGE CARTRIDGE WITH HARD DRIVE AND ALIGNMENT FEATURE**REMARKS**

The following Remarks are made in response to the Non-Final Office Action mailed December 15, 2005. In that Office Action, claims 1-3, 8, 10, 12, 17-18, and 21-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lu et al., U.S. Patent No. 6,317,317 ("Lu") in view of Chee et al., U.S. Patent No. 6,324,054 ("Chee"). Claims 4-7 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Chee and further in view of Crockett, U.S. Patent No. 6,061,231 ("Crockett").

With this Response, claims 9 and 13 have been amended. Claims 1-18 and 21-24 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections Under 35 U.S.C. §103(a)**Independent Claim 1**

Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Chee. Amended independent claim 1 relates to a data storage cartridge including a housing and a hard drive. The housing defines an interior cavity, an access window, and at least one alignment feature positioned within the interior cavity. The housing includes a polymeric material. The hard drive is maintained within the interior cavity and has at least one electrical connection point. The at least one alignment feature is configured to interact with the hard drive to at least partially align the at least one electrical connection point relative to the access window. The cited references fail to teach or otherwise suggest these limitations.

For instance, Lu not only fails to teach the housing includes a polymeric material as stated in the Office Action (pages 2-3), but Lu teaches against the housing including a polmeric material as recited in claim 1. It is an "object" of Lu "to provide an electromagnetic wave protective insertion cartridge for hard disc of a portable computer, which is able to prevent electromagnetic wave from interfering with the hard disc or escaping" (column 1, lines 46-50). To achieve this objective, Lu discloses an upper cover 10 and a lower cover 30 collectively forming a cartridge 1 for housing a hard disc 20. Each cover 10, 30 is made of metal "to prevent the electromagnetic wave produced in operation of the hard disc 20 from escaping" the insertion cartridge (column 2, lines 29-32; abstract). With the above in mind, Lu not only fails to teach,

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but given the disclosed use of metal to prevent the escape of electromagnetic waves, Lu actually teaches away from modifying covers 10, 30 to be formed of or to include any non-metal material, such as a polymeric material.

More particularly, modifying the cartridge of Lu to include a polymeric material would render the cartridge of Lu unsatisfactory for its intended purpose of preventing escape of the electromagnetic waves from the cartridge. Since such modification would render Lu unsatisfactory for its intended purpose, there is no suggestion or motivation to make the proposed modification. MPEP 2143.01 V; *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Therefore, there is no suggestion to combine Lu with Chee or Crockett or any other reference that teaches covers formed of or including a polymeric material as recited in independent claim 1. Rather, Lu teaches away from such features of the claimed invention and, therefore, teaches away from combination with Chee. Accordingly, the teachings of Chee to provide polymeric shock absorbing drive enclosure are of no consequence.

Moreover, Lu does not disclose or otherwise suggest a need to make the enclosure any more "robust" than the design it discloses. Therefore, even if, for argumentative purposes only, Lu was considered to not teach against the suggested combination, Lu also fails to suggest the desirability of the resultant combination. "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP §2143.01 III; *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Accordingly, since the reasoning cited in the Office Action for modifying the cartridge of Lu is not based on any desirability disclosed in the prior art, there is no suggestion to combine Lu with Chee. In addition, Chee fails to suggest any desirably to be modified based on the insertion cartridge of Lu.

Moreover, if there were a suggestion to modify Lu with the teachings of Chee, which the Applicant avers there is not, Applicant believes that Lu fails to teach or suggest at least one alignment feature positioned within the interior cavity of the housing. In particular, the Office Action points to a feature indicated in Figures 1 and 2 of the Office Action as being an alignment feature. The indicated feature is not referred to in any matter by Lu, nor does Lu even indicate

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that the hard disc 20 would ever contact the “overlapped outer wall” or the feature indicated in the Office Action as an “underlapped alignment rib.” In fact, the only description in Lu of the hard disc 20 contacting a wall of the cover 30 refers to contact between the hard disc 20 and a protuberance 362 formed in each lateral wall of the cover 30, not the “overlapped outer wall” referred to in the Office Action. Since no disclosure or teaching in Lu provides that the hard disc 20 contacts or otherwise interacts with the indicated “rib” of Lu, Lu fails to teach or otherwise suggest the “housing defining . . . at least one alignment feature positioned within the interior cavity. . . wherein the at least one alignment feature is configured to interact with the hard drive to at least partially align the at least one electrical connection point relative to the access window” (*Emphasis added*) as recited in claim 1. This conclusion is supported by the Office Action mailed on January 26, 2005, which states that with respect to claim 1, “Lu et al. fails to teach the use of alignment features” (Page 4, lines 1-2).

Furthermore, the indicated “rib” of Lu appears to be included to facilitate coupling of the lateral wall to the end or “overlapped outer wall” of cover 30 and to square the cover 30 as necessitated by the metal fabrication of the cover 30 described above. As such, even if there were a suggestion to combine Lu with the one-piece polymeric housing of Chee, if cover 30 were formed as one piece of a polymeric material, the “rib” of Lu would be eliminated. Notably, “[i]t is impermissible to pick and chose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art.” *Bausch & Lomb, Inc. v. Barnes-Hind Hydrocurve, Inc.*, 796 F.2d 443, 448 (Fed. Cir. 1986).

For at least the above-described reasons, amended, independent claim 1 is believed to be allowable over the cited references and withdrawal of the associated rejections is respectfully requested.

Dependent Claims 2-8, 10-12, 17-18, and 21-23

Claims 2, 3, 8, 10, 12, 17-18, and 21-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Chee. Each of claims 2, 3, 8, 10, 12, 17-18, and 21-23 depend

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from independent claim 1, which as described above is believed to be allowable. Therefore, claims 2, 3, 8, 10, 12, 17-18, and 21-23 are also believe to be allowable and withdrawal of the rejections of claims 2, 3, 8, 10, 12, 17-18, and 21-23 is respectfully requested.

In addition, many of claims 2, 3, 8, 10, 12, 17-18, and 21-23 present additional patentably distinct subject matter. For example, claim 8 recites the at least one alignment feature of the housing includes an alignment rib extending in a direction substantially perpendicular to the access window and being "configured to align the at least one electrical connection point relative to the access window in the Y-direction." The Y-direction is defined in claim 3, from which claim 8 depends, as being parallel to a length of the access window where the X-direction is defined as being parallel to a width of the access window. Referring to Lu, the Y-direction as defined in claim 3 would be parallel to the extension of the overlapped outer wall. Assuming for argumentative purposes only that the "underlaped alignment rib" cited in the Office Action contacted the hard disc 20 and given the orientation of the "rib" to extend in the Y-direction as shown in Figures 1 and 2 of the Office Action, the "rib" would not align the hard disc in the Y-direction parallel the overlapped wall, but rather would only be capable of aligning the hard disc in the X-direction. Therefore, the "rib" of Lu fails to have the features of the alignment rib as recited in claim 8, and limitations recited in claim 8 provide additional support for the allowance of claim 8.

Claims 4-7 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Chee and further in view of Crockett. Each of dependent claims 4-7 and 11 depend from independent claim 1, which as described above is believed to be allowable. Consequently, claims 4-7 and 11 are also believed to be allowable. In addition, each of claims 4-7 and 11 are believed to present additional patentably distinct subject matter. For example, the cited references fail to teach the at least one alignment features including an alignment post as recited in each of claim 4-7 and 11.

As stated in the Office Action, Lu in view of Chee "fails to teach that the alignment feature includes an alignment post." The addition of Crockett fails to alter this analysis. The Office Action states that the combination of Lu in view of Chee with Crockett would be obvious

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“to provide a hard disk assembly which has significant resistance to damage from mechanical shock so as to make the disk drive more rugged” (page 7). However, even if Lu and Chee are combined as suggested by the Examiner (which the Applicant avers there is not suggestion to do), the cartridge is already formed of a polymeric material to be more rugged and to be protected from mechanical shock (for example, see Crockett, column 2, lines 43-46 and the Office Action reasons for combining Lu and Chee). Therefore, since in view of Chee, the hard drive is already made more robust and is protected from mechanical shock, there is no further reason to add the support members 20 of Crockett. Consequently, recitation of an “alignment post” in claims 4-7 and 11 further supports the allowance of claims 4-7 and 11.

Independent Claim 18

Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Chee. Among other features, claim 18 recites a housing of the data storage cartridge being formed of a polymeric material and placing the hard drive within the housing. For similar reasons as described above with respect to claim 1, Lu teaches away from a housing formed of a polymeric material. Therefore, there is no suggestion to modify Lu with Chee to form the cover 30 to be formed of a polymeric material. As such, claim 18 is believed to be allowable over the cited references, and withdrawal of the rejection of claim 18 is respectfully requested.

Dependent Claim 24

Claim 24 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lu in view of Chee. Claim 24 depends from independent claim 18, which as described above is believed to be allowable. Consequently, claim 24 is also believed to be allowable. In addition, claim 24 is believed to present additional patentably distinct subject matter. In particular, Lu in view of Chee fails to teach or otherwise suggest “placing the at least one electrical connection point in a position to be transversely contacted by a cartridge drive through the access window” as recited in claim 24. Although as noted in the Office Action, the electrical connector 22 of Lu is accessible through the opening in the lower cover, the electrical connector 22 is not positioned to be transversely contacted through the opening.

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Rather, the hard disc connector 62 of the portable computer slides in from the end of the electrical connector 22, such that connector 62 contacts and is positioned substantially parallel to the electrical connector 22. This is in direct contrast to positioning the electrical contact point to be "transversely" contacted as recited in claim 24. For instance, one example of a electrical connection point positioned to be transversely contacted is collectively shown in Figures 4 and 8 and generally described, for example, on page 18, lines 12-16 of the present application. More specifically, the emulator connector 146 transversely contacts the electrical connection points 112 of the hard drive 14 through the access window 22, in other words, the emulator connector 146 contacts the electrical connection points 112 at a right angle (*See, e.g., Merriam-Webster Online Dictionary*, <http://www.m-w.com/dictionary/transverse>, which defines "transverse" as "made at right angles to the anterior-posterior axis of the body"). Not only does Lu fail to show positioning for transverse contact, but the positioning of the opening in the cover 30 or, more particularly, the lack of any opening in the bottom member of cover 30 does not allow transverse contact to be made with the electrical connector 22 of Lu. Accordingly, the features of claim 24 provide additional patentably distinct subject matter further supporting Applicant's belief that claim 24 is allowable.

Allowable Subject Matter

In the Office Action, claims 9 and 13-16 were objected to as being dependent upon a rejected base claim, but were indicate to be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. With this Response, claims 9 and 13 have been amended into independent form including the limitations of the base claim and intervening claims. Accordingly, amended, independent claims 9 and 13 are believed to be allowable. Claims 14-16 depend from claim 13, which as described above is believed to be allowable. Therefore, claims 14-16 are not believed to be dependent upon a rejected base claim and are believed to be allowable. Applicant respectfully requests that the objections to claims 9 and 13-16 be withdrawn and that claims 9 and 13-16 be deemed allowable.

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CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-18 and 21-24 are all in a condition for allowance and requests reconsideration of the application and allowance of all pending claims.

Applicant hereby authorizes the Commissioner for Patents to charge Deposit Account No. 09-0069 in the amount of \$200.00 to cover the fees as set forth under 37 C.F.R. 1.16(h)(i). The Examiner is invited to contact Applicant's representative at the below-listed telephone number if there are any questions regarding this Response.

Respectfully submitted,

Date: 3/14/06
EDL:JMS:mas


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